

EXHIBIT 6

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
SAN FRANCISCO DIVISION

ORACLE AMERICA, INC.,)
Plaintiff,)
vs.) No. CV 10-03561 WHA
GOOGLE, INC.,)
Defendant.)

ATTORNEYS' EYES ONLY

Videotaped Deposition of EREZ LANDAU,
taken at 42 Chauncy Street, Boston,
Massachusetts, commencing at 9:50 a.m.,
Wednesday, September 14, 2011, before
Jill Shepherd, RPR, MA-CSR No. 148608,
NH-CSR No. 128, CA-CSR No. 13275, CLR,
Notary Public.

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Page 1

Attorneys' Eyes Only

<p>1 used the skeleton. It was one of them, but 2 I don't remember which one. It was just for 3 form to fill out my stuff to give it the 4 same format. 5 Q. You didn't review the content of 6 Mr. Vandette or Mr. Poore's reports? 7 A. Not technically. 8 Q. Is Oracle paying you anything in addition to 9 your regular salary for working on this 10 case? 11 A. No. 12 Q. Approximately how many hours or days have 13 you spent on this case? 14 A. Hours, it's about 100 or 200. Not including 15 this week. This week jump it up. 16 Q. Is your involvement in this case officially 17 part of your job responsibilities? 18 A. It's approved by my manager, but it's not 19 part of my job responsibility. 20 Q. Have you in the past performed any work for 21 other litigations -- 22 A. No. 23 Q. -- involving Oracle or Sun? 24 A. No. 25 Q. Do you have any patents on Java-related</p> <p style="text-align: right;">Page 18</p>	<p>1 Q. 35,000 shekels a month? 2 A. Yes. 3 Q. It is about 3.7 shekels per dollar 4 approximately; is that correct? 5 A. That's 3.5 and 3.7 depending on the day of 6 the week. 7 Q. Do you own any Oracle stock or options? 8 A. A few. 9 Q. Do you know approximately how much? 10 A. Around \$2,000 worth. 11 Q. What kind of phone do you use? 12 A. iPhone. 13 Is it possible to get some more water? 14 (Pause.) 15 (Exhibit 488 marked.) 16 Q. To make things official, have you seen this 17 notice before? 18 A. (Witness reviewing document). 19 No. 20 Q. Okay. Exhibit 488 is just a notice of your 21 deposition. 22 Have you been informed that you are 23 here today to testify as an employee of 24 Oracle regarding matters in this case? 25 MR. PETERS: Objection. Form.</p> <p style="text-align: right;">Page 20</p>
<p>1 technology? 2 A. Yes. 3 Q. How many? 4 A. Well, I submitted four. I think only one is 5 finished on the line, on the way, fully 6 approved, but four submitted. 7 Q. One patent issued and -- 8 A. Four patents issued, one of them was 9 approved. They are in process still. It 10 takes several years. 11 Q. What are those patents generally about? 12 A. Most of them are related to memory usage and 13 class loading and fast startup. The same 14 area -- very close area to the '720 patent. 15 Q. Do you get any bonus or award for submitting 16 patent applications? 17 A. Yes. 18 Q. How much? 19 A. \$2,000 per patent. 20 Q. Do you have any financial interest in the 21 outcome of this litigation? 22 A. No. 23 Q. What is your salary? 24 A. 35,000 dollars -- shekels. Shekels, it's 25 Israeli currency.</p> <p style="text-align: right;">Page 19</p>	<p>1 A. Yes. 2 (Exhibit 489 marked.) 3 Q. Exhibit 489 is a copy of U.S. patent number 4 7,426,720, which I will refer to as the '720 5 patent. 6 Have you reviewed the '720 patent 7 before? 8 A. Partially. 9 Q. What do you mean by "partially"? 10 A. I did not read it start to end, only 11 specific. 12 Q. What specific portions did you review? 13 A. The abstracts, and then part of the claims, 14 especially claim number one. 15 Q. You did not -- let me rephrase. 16 Did you review the figures in the 17 patent? 18 A. No. 19 Q. Did you review -- 20 A. I would look at them. I'm familiar with 21 them. That's why I did not bother to... 22 Q. Did you read through the specification of 23 the patent, the general discussion? 24 A. Not in this form. I was reviewing it when 25 it was submitted, sometime after it's been</p> <p style="text-align: right;">Page 21</p>

<p>1 submitted. But in the final form? No.</p> <p>2 It's not always the same.</p> <p>3 Q. Do you mean you were reviewing a draft of</p> <p>4 this patent?</p> <p>5 A. Yes.</p> <p>6 Q. Do you know which claims of this patent are</p> <p>7 asserted in this case?</p> <p>8 A. I was told. I don't remember by heart.</p> <p>9 Q. Did you review Oracle's infringement</p> <p>10 contentions for this patent?</p> <p>11 A. No. I think I was asked about it.</p> <p>12 Q. What is this patent about?</p> <p>13 MR. PETERS: Objection. Form.</p> <p>14 A. It's about the usage of copy-on-write</p> <p>15 mechanism cloning for the benefit of fast</p> <p>16 and efficient memory class loading and other</p> <p>17 stuff.</p> <p>18 Q. What functionality in Android is accused of</p> <p>19 infringing this patent?</p> <p>20 MR. PETERS: Objection. Form.</p> <p>21 A. Zygote.</p> <p>22 Q. How do you know what functionality was</p> <p>23 accused in this case?</p> <p>24 A. I looked into zygote code and I can find the</p> <p>25 code that relate to this. I am very</p> <p style="text-align: right;">Page 22</p>	<p>1 being duplicated via the process of the page</p> <p>2 table, TBL, and after that point in the</p> <p>3 process is created in the schedule, and that</p> <p>4 the entire page table is identical.</p> <p>5 Page table is what translates from virtual</p> <p>6 addressing into physical addressing, and the</p> <p>7 result of it is you have two processes with</p> <p>8 the exact same identity, the same thought,</p> <p>9 same recollection, same memory, same state</p> <p>10 exactly.</p> <p>11 And after this point, they are going</p> <p>12 their own separate ways, but the cloning is</p> <p>13 same state, not just the application. Once</p> <p>14 they start to go their own ways, there is</p> <p>15 the technique, all the memory they are</p> <p>16 referencing is -- the read-only, and when</p> <p>17 they try to touch it, modify it, they get an</p> <p>18 exception automatically. This page has been</p> <p>19 copied, and you get your own private copy of</p> <p>20 it.</p> <p>21 This is why it's also called</p> <p>22 copy-on-write. Copy-on-write is just a</p> <p>23 nickname for the entire process of cloning</p> <p>24 via fork. This is the phenomenon and this</p> <p>25 technique is used for fast saving and faster</p> <p style="text-align: right;">Page 24</p>
<p>1 familiar with Sun's special implementation</p> <p>2 of this patent and I was looking for</p> <p>3 something similar.</p> <p>4 Q. Did you perform that analysis independently</p> <p>5 of Oracle's attorneys?</p> <p>6 A. Attorneys? Yes. I was consulting with</p> <p>7 John Mitchell. I was consulting with him.</p> <p>8 Q. Did he tell you what to look at?</p> <p>9 A. We agreed upon -- what we agreed upon is</p> <p>10 that copy-on-write is an essential part of</p> <p>11 this patent and must be disabled in order to</p> <p>12 disable this patent, and also we agreed that</p> <p>13 once we disable copy-on-write, all the other</p> <p>14 parts are disabled, so it's efficient to</p> <p>15 disable this entire patent by disabling</p> <p>16 copy-on-write. So disable this entire</p> <p>17 patent by disabling of copy-on-write. So</p> <p>18 disable of copy-on-write is a must and</p> <p>19 sufficient.</p> <p>20 Q. What is copy-on-write?</p> <p>21 A. The long version is two days, the short</p> <p>22 version is one hour. I will try to do it.</p> <p>23 It's pretty complicated.</p> <p>24 Copy-on-write starts with fork in</p> <p>25 which the entire image of an application is</p> <p style="text-align: right;">Page 23</p>	<p>1 startup and memory saving in general, but</p> <p>2 there is much more.</p> <p>3 Q. When was this technique developed?</p> <p>4 A. 1980 plus once a year [sic]. 1979 or to</p> <p>5 1981, but I think it's 1980, plus one --</p> <p>6 plus/minus one year.</p> <p>7 Q. Was it implemented in operating systems like</p> <p>8 UNIX?</p> <p>9 A. It was implemented only in UNIX, not "like."</p> <p>10 Q. Is it in Linux?</p> <p>11 A. Everything from Unix is in Linux as well.</p> <p>12 Q. Were there virtual machines that used it?</p> <p>13 A. Yes. CVM, but CVM was the first one, and</p> <p>14 then Android was the only one.</p> <p>15 Q. Are you familiar with the Perl virtual</p> <p>16 machine?</p> <p>17 A. Which?</p> <p>18 Q. Perl.</p> <p>19 A. No.</p> <p>20 Q. Which Oracle products use it? Let me</p> <p>21 rephrase.</p> <p>22 Which Oracle products use</p> <p>23 copy-on-write?</p> <p>24 MR. PETERS: Objection. Form.</p> <p>25 A. I told you, CVM.</p> <p style="text-align: right;">Page 25</p>

Attorneys' Eyes Only

<p>1 Q. Turning to page four, paragraph 18, you say, 2 "We selected a single production phone." 3 Who is "we"? 4 A. I would say me and Seeon, and also 5 John Mitchell. 6 Q. And you tested two Nexus One phones; is that 7 correct? 8 A. Yes. 9 Q. You had two separate phones; is that 10 correct? 11 A. Yes. 12 Q. Did Oracle send those phones to you in 13 Israel to test? 14 A. I had them before. 15 Q. Paragraph 19, you say, "Memory consumption 16 is not expected to vary between phones" and 17 "startup time is expected to stay 18 proportional to other timing on the phone"; 19 is that correct? 20 A. Yes. 21 Q. Do all phones have the same amount of 22 memory? 23 A. No. 24 Q. Do you know how Android manages memory? 25 A. It's very -- it's too open a question.</p> <p style="text-align: right;">Page 38</p>	<p>1 A. To the best of my knowledge; and it's not my 2 expertise, no. 3 Q. To the best of your knowledge, some phones 4 may have a faster processor than other 5 phones; is that correct? 6 MR. PETERS: Objection. Form. 7 A. Yes. 8 Q. Would it make sense that faster processors 9 can result in a faster startup time? 10 MR. PETERS: Objection. Form. 11 A. There is a general trend in the market to 12 use faster and stronger and more powerful 13 and more memory capacity devices, and on the 14 other end to use more and more software, 15 demands more performance, more memory, and 16 more stuff to do at startup, so your device 17 is always too slow and you never have enough 18 memory. 19 Q. But if you are using the same software -- 20 MR. PETERS: Objection. Form. 21 Q. -- would a faster processor run that 22 software faster? 23 MR. PETERS: Objection. Form. 24 A. As a customer of phones, I will use the 25 cheapest phone that can run my set of</p> <p style="text-align: right;">Page 40</p>
<p>1 Q. Do you understand that if a phone has less 2 memory, Android may have to be more 3 aggressive in clearing out memory to make 4 space available -- 5 A. Yes. 6 Q. -- for new applications? 7 A. Sorry. It will clear application that's not 8 in use if it's scarce on memory. 9 Q. And if an Android-based device has more 10 memory, it has the flexibility to leave more 11 data and code in memory; is that correct? 12 MR. PETERS: Objection. Form. 13 A. More data and code? I cannot relate to this 14 definition. It's somewhat wrong 15 technically. 16 Q. What I'm asking is if there's more memory on 17 an Android-based device, it may consume 18 memory differently than on an Android-based 19 device that has less memory; is that 20 correct? 21 MR. PETERS: Objection. Form. 22 A. It's hard to say yes or no. It depends. 23 Q. Do all Android-based devices have the same 24 processor? 25 MR. PETERS: Objection. Form.</p> <p style="text-align: right;">Page 39</p>	<p>1 software. I won't waste money to make it 2 faster if I can use a cheaper one, but... 3 Q. When was the Nexus One phone released? 4 A. I don't remember. 5 Q. If I told you it was released in 6 January 2010, would that make sense? 7 A. I don't know. I didn't follow the initial 8 declaration of it. 9 Q. Why did you test the Nexus One phone? 10 A. Available. 11 Q. In other words, you were able to get the 12 phone to test? 13 A. Yes. 14 Q. Was the Nexus S phone enabled? 15 A. To me, this one was available. It was a 16 good enough representative and Google can 17 try it on any other phone they like. 18 Q. When you say "available," do you mean 19 available to you in Israel? 20 A. Yes. 21 Q. Is the Nexus S phone available in Israel? 22 MR. PETERS: Objection. Form. 23 A. Maybe. I didn't check. I'm not an Android 24 fan. You can ask me about my iPhone. I 25 will know better.</p> <p style="text-align: right;">Page 41</p>

<p>1 and it's a big advantage. When you are</p> <p>2 doing the implicit sharing, you have to do a</p> <p>3 lot of preparation, a lot of work. It's a</p> <p>4 very difficult technique, very complex to</p> <p>5 implement it, and it can be done on a very</p> <p>6 specific location and very specific way.</p> <p>7 You have to develop extra technique, which I</p> <p>8 describe in my patent. So to do just simply</p> <p>9 this way, it's not simple at all. It's one</p> <p>10 of the most complicated patents I was</p> <p>11 working on.</p> <p>12 Q. How long has shared memory been a computer</p> <p>13 technique?</p> <p>14 A. Since for Fordtran in '64, I think, '65.</p> <p>15 Q. Shared memory has been around for a while</p> <p>16 then?</p> <p>17 A. It is a different shared memory than what</p> <p>18 you are thinking about today, shared memory.</p> <p>19 It's way different. It's almost like saying</p> <p>20 that television is around for the last</p> <p>21 50 years. It's not the same.</p> <p>22 Q. In paragraph 28, you say, "All workspaces</p> <p>23 were compiled and loaded to the device"; is</p> <p>24 that correct?</p> <p>25 A. Yes.</p> <p style="text-align: right;">Page 58</p>	<p>1 will do it. But this is why you get help.</p> <p>2 (Exhibit 491 marked.)</p> <p>3 Q. Exhibit 491 is a printout from the Android</p> <p>4 Web site.</p> <p>5 Have you ever seen this before?</p> <p>6 A. I think it's a reference that I was giving.</p> <p>7 I'm in our -- it looks like it. I'm not</p> <p>8 sure. You have to be more precise. Let me</p> <p>9 see. (Witness reviewing document).</p> <p>10 It looks similar. I cannot say for</p> <p>11 sure. If you tell me it's the same</p> <p>12 reference that I have given, then it's okay.</p> <p>13 But I'm not sure.</p> <p>14 Q. It is.</p> <p>15 A. So, okay. So it's the</p> <p>16 source.android.com/source/initilizing.html.</p> <p>17 It's this.</p> <p>18 Q. Did you use a Linux machine or a Mac machine</p> <p>19 to test the phones?</p> <p>20 A. Linux.</p> <p>21 Q. Which version of Linux?</p> <p>22 A. Ubuntu.</p> <p>23 Q. Which version of Ubuntu?</p> <p>24 A. Not sure.</p> <p>25 Q. Did you install the JDK onto Linux?</p> <p style="text-align: right;">Page 60</p>
<p>1 Q. Did you do that yourself?</p> <p>2 A. No.</p> <p>3 Q. Who did that?</p> <p>4 A. Seeon. I supervised him.</p> <p>5 Q. What do you mean you supervised him?</p> <p>6 A. In most cases I was standing next to him.</p> <p>7 Q. Why did he do it?</p> <p>8 A. He's more familiar with the Android SDK</p> <p>9 techniques. If I would do it, it would take</p> <p>10 me four times the time than it is taking</p> <p>11 him. Sometimes he is just more familiar</p> <p>12 with the issues. And besides, his time is</p> <p>13 less valuable.</p> <p>14 Q. We'll be sure to ask him if he has the same</p> <p>15 opinion.</p> <p>16 A. He got less salary. And, normally, I was</p> <p>17 supervising for the first time he was doing</p> <p>18 it, and the second and third and fourth time</p> <p>19 he was doing it, he was doing it alone, and</p> <p>20 I was just making sure it was okay. There</p> <p>21 was many, many executions so I was just</p> <p>22 supervising the first time making sure it's</p> <p>23 correct. Then he can repeat the process</p> <p>24 again and again. He can repeat the process</p> <p>25 again and again. If it was just one time, I</p> <p style="text-align: right;">Page 59</p>	<p>1 A. I installed the JDK onto Linux, but not for</p> <p>2 this testing that was done. It was done by</p> <p>3 Seeon. And it was easy installation. I was</p> <p>4 doing installation separately.</p> <p>5 Q. What installation did he -- of JDK did he</p> <p>6 put on?</p> <p>7 A. It's written over here in the instructions.</p> <p>8 We took the entire repo. It's page six, the</p> <p>9 beginning. For the instructions, page six.</p> <p>10 Q. I understand that. But I want to understand</p> <p>11 the build environment that you created to</p> <p>12 build Android. So you indicated that you</p> <p>13 put on the Ubuntu version of Linux.</p> <p>14 Did you put on the Oracle JDK or open</p> <p>15 JDK onto Linux?</p> <p>16 A. Yes, as instructed.</p> <p>17 Q. Do you know which version of JDK?</p> <p>18 A. Six. What was available then. It's not so</p> <p>19 important.</p> <p>20 Q. JDK6?</p> <p>21 A. Yes.</p> <p>22 Q. Did you do this before you downloaded the</p> <p>23 Android code?</p> <p>24 A. I don't remember. It's not important. If</p> <p>25 you do it after or before, it's the same</p> <p style="text-align: right;">Page 61</p>

<p>1 result.</p> <p>2 Q. Did you install all the packages that this</p> <p>3 Web site says to install on Linux?</p> <p>4 A. I think -- I'm not sure.</p> <p>5 Q. You see on the bottom towards the bottom of</p> <p>6 the page, it has an S-U-D-O, sudo</p> <p>7 add-apt-get, then a list of a whole bunch of</p> <p>8 packages.</p> <p>9 Are you saying you are not sure if</p> <p>10 these were installed?</p> <p>11 A. Well, I'm sure what was written here was</p> <p>12 installed. I am not sure those composed of</p> <p>13 everything. I'm sure this was written and</p> <p>14 this is what was done, but you are asking me</p> <p>15 a different question.</p> <p>16 Q. Your report doesn't say -- only says that</p> <p>17 you downloaded the Android source code.</p> <p>18 I'm --</p> <p>19 MR. PETERS: Objection. Form.</p> <p>20 Q. Is that correct?</p> <p>21 A. It's ambiguous.</p> <p>22 Q. What's ambiguous?</p> <p>23 MR. PETERS: Objection. Form.</p> <p>24 A. Saying just the Android itself -- what is</p> <p>25 written over here is correct [indicating],</p> <p style="text-align: right;">Page 62</p>	<p>1 (Exhibit 492 marked.)</p> <p>2 Q. Exhibit 492 is another Web page from the</p> <p>3 Android Web site that discusses downloading</p> <p>4 the Android source code; is that correct?</p> <p>5 A. This is the title.</p> <p>6 Q. Do you recall seeing this page before?</p> <p>7 MR. PETERS: Objection. Form.</p> <p>8 A. Not off the top of my head. Maybe, yes.</p> <p>9 Maybe, no. I'm not sure.</p> <p>10 Q. On the top of page two, it has in green a</p> <p>11 repo command to download Froyo source code,</p> <p>12 and that is the same as the command that you</p> <p>13 listed in paragraph 25 of your report; is</p> <p>14 that correct?</p> <p>15 A. It is the same.</p> <p>16 Q. Do you know what gets downloaded to your</p> <p>17 computer when you run this command?</p> <p>18 A. Most of that SDK. This is SDK. There is</p> <p>19 multiple layers of downloading it. This is</p> <p>20 the initial one. There are additions to it</p> <p>21 to make it functional.</p> <p>22 I want to correct myself. I did not</p> <p>23 see this key before. There is a key on the</p> <p>24 end of page two that you have to copy. I</p> <p>25 did not see it before. So I am sure I did</p> <p style="text-align: right;">Page 64</p>
<p>1 and it's full of detailed instructions and</p> <p>2 long ones and...</p> <p>3 Q. Paragraph 28, you say, "All workspaces were</p> <p>4 compiled and loaded to the device following</p> <p>5 the directions described at Google's Web</p> <p>6 site."</p> <p>7 A. Yes.</p> <p>8 Q. You testified that Seon was the one who</p> <p>9 actually did that; is that correct?</p> <p>10 A. Yes.</p> <p>11 Q. And I'm asking if whoever did it followed</p> <p>12 the specific directions on Android's</p> <p>13 Web site or not.</p> <p>14 A. Correct.</p> <p>15 Q. So I am asking you if all these packages</p> <p>16 that it says should be installed were</p> <p>17 installed on Linux?</p> <p>18 A. All the packages that was cited should be</p> <p>19 installed were installed.</p> <p>20 Q. Are you sure?</p> <p>21 A. I'm sure that everything in it to build the</p> <p>22 system was installed. So this is what I am</p> <p>23 sure of. It was working. Since I did not</p> <p>24 do it by hand, I cannot be sure. But it</p> <p>25 makes sense.</p> <p style="text-align: right;">Page 63</p>	<p>1 not see this page before.</p> <p>2 Q. This appears to be the Web page that</p> <p>3 explains how to download the Android source</p> <p>4 code and verify that it was downloaded</p> <p>5 correctly; is that correct?</p> <p>6 MR. PETERS: Objection. Form.</p> <p>7 A. Maybe. I did not see it before. We've been</p> <p>8 using this [indicating]. This was</p> <p>9 sufficient for us.</p> <p>10 Q. You are referring to Exhibit 491?</p> <p>11 A. I am referring to 491, yes.</p> <p>12 Q. Does 491 provide the repo address that you</p> <p>13 reference in paragraph 25 of your report?</p> <p>14 A. (Witness reviewing document).</p> <p>15 I don't see it. Let me see. (Witness</p> <p>16 reviewing document.)</p> <p>17 No. This is why it was explicitly</p> <p>18 stated in my report.</p> <p>19 Q. Where did you get that cite instruction</p> <p>20 from?</p> <p>21 A. This one [indicating]?</p> <p>22 Q. Yes.</p> <p>23 A. Seon did it before me. I don't know where</p> <p>24 he get it from.</p> <p>25 Q. How do you know that this is the correct</p> <p style="text-align: right;">Page 65</p>

<p>1 Q. But if copy-on-write is disabled, it would 2 just be a waste of memory to load these into 3 preloader? 4 A. Yes. 5 Q. And it might be more sensible to simply 6 launch the specific classes that are needed 7 when an application that needs them is 8 loaded into memory; is that correct? 9 A. Yes. 10 Q. So, for example, if you had a text messaging 11 application and it needed 15 of these 12 classes to run, it would make sense to just 13 launch the text messaging application, load 14 just those 15 classes into memory; is that 15 correct? 16 MR. PETERS: Objection. Form. 17 A. Not exact. 18 Q. What do you mean? 19 A. You don't need to load anything if you don't 20 have anything for it. You just load it on 21 demand when you need it. It loads 22 automatically. You don't have to give a 23 list of anything. If you don't have any 24 kind of -- something is preloading into your 25 system, there's no need for you to preload</p> <p style="text-align: right;">Page 86</p>	<p>1 work that way? 2 MR. PETERS: Objection. Form. 3 A. What for? 4 Q. Well, you wrote an application that loaded 5 all of these classes, but with copy-on-write 6 disabled; is that correct? 7 A. To show the difference. 8 Q. But would it make sense for Android to 9 actually implement it this way? 10 MR. PETERS: Objection. Form. 11 A. Doesn't matter. It was not the purpose 12 to show -- to demonstrate the way -- to 13 demonstrate the value that can be given from 14 copy-on-write if you are using more of the 15 library loaded. When you find out if you 16 have point one seconds per application 17 currently, because I don't use much -- 18 Q. Right. 19 A. -- and I want to show what happens if an 20 application will use much more. I take the 21 position that if use everything, which is 22 the maximum, when you use everything listed 23 now, in the future it might be a larger list 24 that can utilize much more time saving. 25 It's valid. And I just want to demonstrate</p> <p style="text-align: right;">Page 88</p>
<p>1 it. 2 Q. But it doesn't make sense to preload it 3 ahead of time unless you are using 4 copy-on-write; is that correct? 5 MR. PETERS: Objection. Form. 6 A. The preloading is effective with the 7 copy-on-write. 8 Q. So without copy-on-write, it would make more 9 sense to preload on demand? 10 MR. PETERS: Objection. Form. 11 A. Without copy-on-write, correct. 12 Q. And within my example of the text messaging 13 application, if it used some classes only in 14 certain instances, you may not even need to 15 load those classes until they were actually 16 needed by the text messaging application? 17 MR. PETERS: Objection. Form. 18 A. Correct. 19 Q. So if Android were to implement the code to 20 not use copy-on-write, it might make sense 21 to simply load class files on demand; is 22 that correct? 23 MR. PETERS: Objection. Form. 24 A. Yes. 25 Q. Did you try an implementation that would</p> <p style="text-align: right;">Page 87</p>	<p>1 the potential. I want to say this is 2 typical, or this is the potential for saving 3 application. The application becomes more 4 complex and will save more. The application 5 become more complex, it would save more. 6 Those applications are very -- and the 7 saving is not significant, .1 second per 8 application. It's nice. It's not 9 significant. It can reach a few seconds per 10 application, and then it's very significant. 11 Q. So in short, your performance test is just 12 to show the difference with and without 13 copy-on-write? 14 A. Yes. To show the potential of saving. 15 Q. But if Android was implemented without 16 copy-on-write, they certainly wouldn't do it 17 this way because it would be more efficient 18 to simply load the classes on demand; is 19 that correct? 20 MR. PETERS: Objection. Form. 21 A. I will refer you -- I will repeat what I was 22 saying before. I wanted to show what will 23 happen when application when used more -- 24 not much more of this. Now, technically, 25 they can use everything. That's the maximum</p> <p style="text-align: right;">Page 89</p>

Attorneys' Eyes Only

1	CERTIFICATE	1	I N D E X
2		2	
3	COMMONWEALTH OF MASSACHUSETTS	3	WEDNESDAY, SEPTEMBER 14, 2011
4	MIDDLESEX, SS.	4	WITNESS PAGE
5	I, Jill Shepherd, Notary Public, in	5	EREZ LANDAU
6	and for the Commonwealth of Massachusetts,	6	Examination by Mr. Francis 5
7	do hereby certify that:	7	Examination by Mr. Peters 106
8	EREZ LANDAU, the witness whose	8	
9	deposition taken on September 14th, 2011 is	9	
10	hereinbefore set forth, was satisfactorily	10	
11	identified by means of driver's license, and	11	DEPOSITION EXHIBITS
12	was duly sworn by me, and that the foregoing	12	NUMBER DESCRIPTION PAGE
13	transcript is a true and accurate record of	13	
14	the testimony given by such witness and such	14	Exhibit 488 Notice 20
15	testimony is a true and accurate	15	Exhibit 489 US Patent No. 7,426,720 21
16	transcription of my stenotype notes to the	16	Exhibit 490 Summary and Report of Erez 28
17	best of my knowledge, skill, and ability.	17	Landau
18	I further certify that I am not	18	Exhibit 491 Open Source Project 60
19	related to any of the parties in this matter	19	Exhibit 492 Open Source Project 64
20	by blood or marriage and that I am in no way	20	Exhibit 493 Open Source Code 67
21	interested in the outcome of this matter.	21	Exhibit 494 Open Source Project 71
22	IN WITNESS WHEREOF, I have hereunto	22	Exhibit 495 Android Copy-on-write 76
23	set my hand and notarial seal this 14th day	23	Statistics
24	of September, 2011.	24	Exhibit 496 MtaskClassLoading.java 83
25		25	Exhibit 497 MtaskClassLoadingActivity.java 83
			Page 112
1	I declare under penalty of perjury	1	DEPOSITION EXHIBITS (CONTINUING)
2	under the laws that the foregoing is	2	NUMBER DESCRIPTION PAGE
3	true and correct.	3	
4		4	Exhibit 498 Source Code 93
5	Executed on _____, 20____,	5	Exhibit 499 Source Code 93
6	at _____.	6	Exhibit 500 Supplemental Summary and 102
7		7	Report of Erez Landau
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9		9	
10		10	
11	EREZ LANDAU	11	
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	Page 111		Page 113